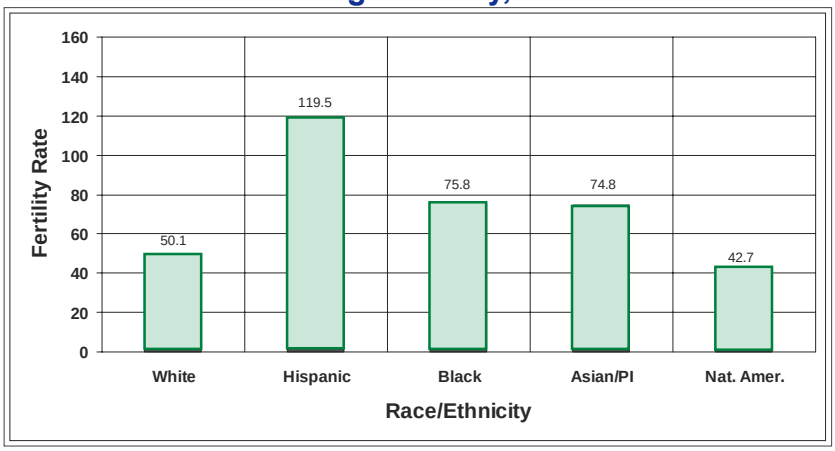
Births

In 1998, there were 43,422 live births to San Diego County residents. The crude birth rate was 15.2 per 1,000 population, continuing a slight decreasing trend seen since 1990. The majority of live births in 1998 were to White and Hispanic mothers, each with 41% of the live births. Nearly 10% of births were to Asian/Pacific Islanders and 7% to Black mothers.

The overall fertility rate was 71.2 per 1,000 females aged 15-44 years. This is a more accurate reflection of the childbearing patterns than the crude birth rate because it takes into consideration the age and gender structure of the population. Hispanic mothers had the highest fertility rate in San Diego County (119.5 per 1,000 females aged 15-44) followed by Blacks (75.8) and Asian/Pacific Islanders (74.8).

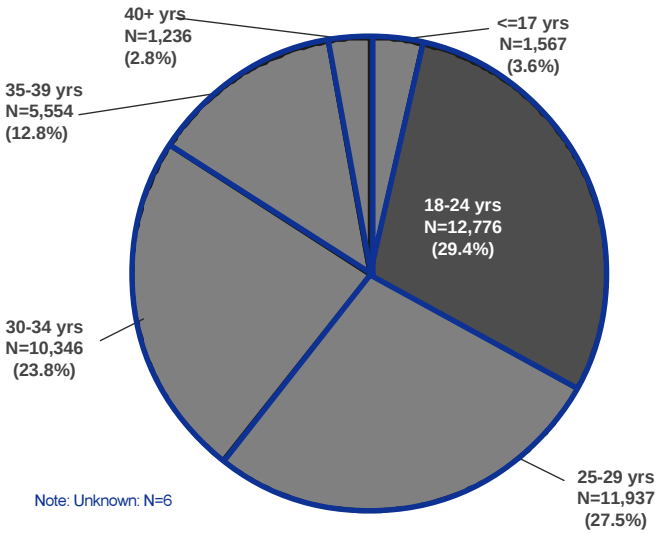
In 1998, 3.6% of births (1,567) were to mothers 17 years of age or younger. This is equivalent to an adolescent birth rate of 11.1 per 1,000 adolescent females. This is much less than the Healthy People 2010 goal of 46 per 1,000 adolescent females.

Fertility Rates* by Race/Ethnicity
San Diego County, 1998



*Number of resident live births per 1,000 females aged 15-44

Births by Age Group
San Diego County, 1998



Note: Unknown: N=6

Deaths

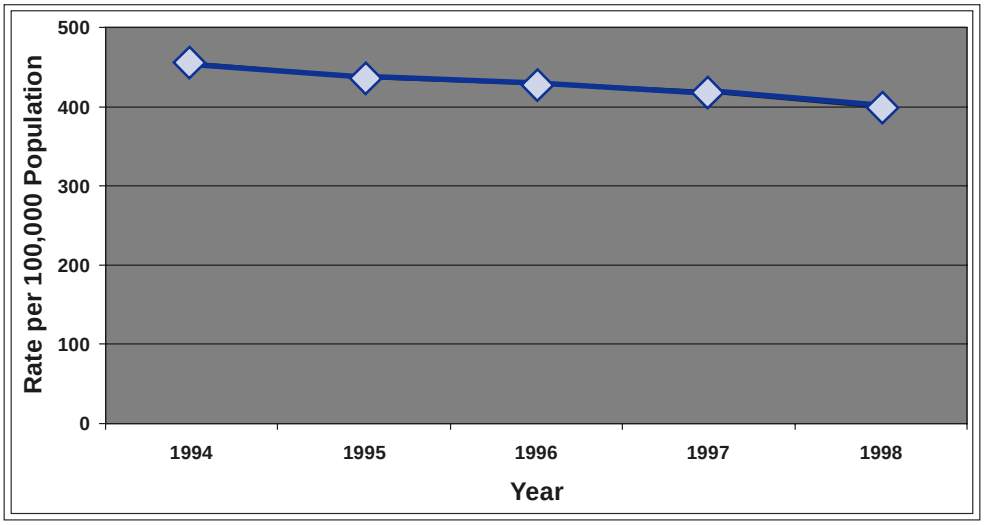
In 1998, there were 18,767 deaths of residents of San Diego, a crude death rate of 657.7 deaths per 100,000 population. Because older populations tend to have higher death rates than younger populations, comparisons on the crude death rates of different populations may be less reflective of the relative health of the populations than of their differing age structures. Age-adjusted death rates permit direct comparison of mortality patterns among groups or places with different age structures. Essentially, the age-adjusted death rate is the number of deaths expected per 100,000 population if each group or time period had the same age structure. The 1998 age-adjusted death rate in San Diego County was 398.8 per 100,000 population, a 12% decrease from the rate of 455.2 per 100,000 four years ago.

The leading two causes of death (heart disease and cancer) accounted for more than one-half of all deaths to San Diego County residents, and nearly three-quarters of deaths could be attributed to the leading five causes. Heart disease accounted for 30% of deaths, 23% of deaths were due to cancer, 7% to stroke, 6% to chronic obstructive pulmonary disease (COPD), and 6% to pneumonia/influenza.

Another way to look at death data is by examining the years of potential life lost (YPLL) due to the different causes. YPLL is a crude estimate of the number of person-years lost due to premature death. Essentially, it assumes a productive life of 75 years. Years of productive life lost are those due to death prior to age 75; no years of productive life are assumed to be lost for those who die at age 75 or older. During 1998, there were over 150,000 person-years of potential life lost. The ranking of causes of death by YPLL takes into account not only the number of deaths due to a given cause, but also the average number of years of life lost due to that cause. While cancer and heart disease remain the leading causes of years lost, unintentional injury, suicide, perinatal conditions, congenital anomalies, stroke and homicide also ranked high as many of these causes lead to death at a younger age.

A different picture of leading causes of death is seen for race/ethnic subgroups. These leading causes of death are a result of physical, social and environmental factors, behaviors and inaccessability of quality health services.

Age-adjusted Mortality Rates, San Diego County: 1994-1998

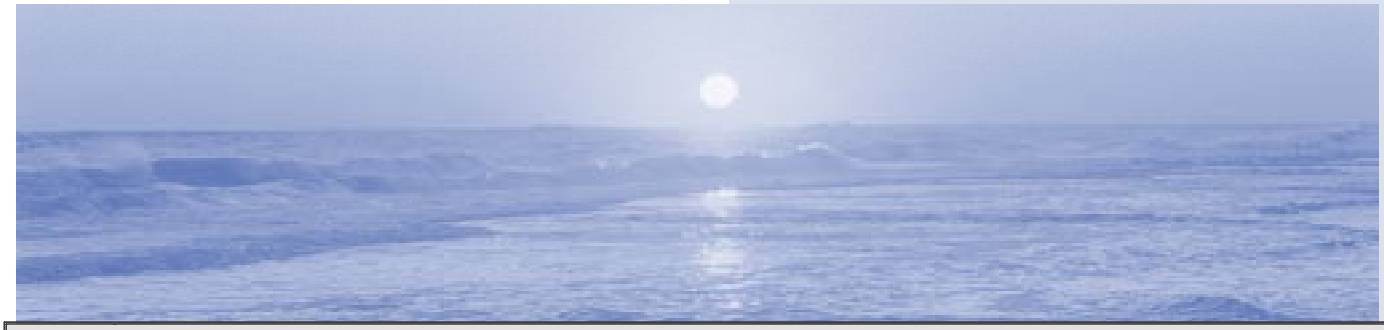


Source: San Diego County Health and Human Services, Division of Community Epidemiology

Leading Causes of Death by Number of Cases and Years of Potential Life Lost, San Diego County, 1998

Cause	Number of Deaths	Cause	YPLL-75
Heart Disease	5,602	Cancer	35,105
Cancer	4,392	Heart Disease	22,459
Stroke	1,351	Unintentional injury	20,431
Chronic obstructive pulmonary disease (COPD)	1,147	Suicide	8,973
Pneumonia/Influenza	1,051	Perinatal conditions	8,344
Unintentional injury	704	Congenital anomalies	5,606
Diabetes	360	Stroke	4,744
Suicide	308	Homicide	4,660
Liver/Cirrhosis	262	Liver/Cirrhosis	4,441
Alzheimer's Disease	246	Chronic obstructive pulmonary disease (COPD)	4,156
Atherosclerosis	149	HIV Infection	3,665
Hypertension	142	Diabetes	2,440
HIV Infection	112	Pneumonia/Influenza	2,157
Perinatal conditions	112	Hepatitis	1,377
Homicide	106	Septicemia	517
Congenital anomalies	106		

Source: County of San Diego, Health and Human Services Agency, Division of Community Epidemiology, California Department of Health Services, Death Records



Leading Causes of Death by Race/Ethnicity, San Diego County, 1998

	White	Hispanic	Black	Native American	Asian/PI
Rank	Cause	Cause	Cause	Cause	Cause
1	Diseases of the heart	Diseases of the heart	Diseases of the heart	Diseases of the heart	Cancer
2	Cancer	Cancer	Cancer	Cancer	Diseases of the heart
3	Cerebrovascular diseases	Unintentional injuries	Cerebrovascular diseases	Unintentional injuries	Cerebrovascular diseases
4	COPD*	Cerebrovascular diseases	Unintentional injuries	Diabetes mellitus	Diabetes mellitus Pneumonia and influenza**
5	Pneumonia and influenza	Pneumonia and influenza	COPD	-***	COPD
6	Unintentional injuries	Diabetes mellitus	Pneumonia and influenza	-	Unintentional injuries
7	Suicide	Chronic liver disease	Diabetes mellitus	-	Suicide
8	Diabetes mellitus	COPD	Homicide	-	Viral hepatitis
9	Alzheimer's disease	Perinatal conditions	Perinatal conditions	-	Congenital anomalies
10	Chronic liver disease	Congenital anomalies	Chronic liver disease HIV infection**	-	Hypertension Perinatal conditions**

Source: California Department of Health Services, Death Records
* Chronic Obstructive Pulmonary Disease
** Condition tied in rank based upon count
*** Categories with fewer than 5 events are not listed

Communicable Disease

Reportable Diseases

Over 84 diseases and conditions are required to be reported to our local health department, under the California Health and Safety Code. Five years of data for select diseases are shown below:

Selected Reportable Diseases San Diego County, 1995-1999

	Number of Cases Reported				
DISEASE	**1995**	**1996**	**1997**	**1998**	**1999**
Campylobacteriosis	701	696	540	464	410
Chlamydia	5,250	5,642	6,398	7,044	7,591
Giardiasis	570	507	455	451	456
Gonorrhea	2,176	1,815	1,509	1,595	1,560
E. Coli	12	15	15	24	9
Hepatitis A	477	642	533	441	276
Hepatitis B (acute)	58	37	39	27	38
Measles	2	3	1	2	1
Meningococcal Disease	28	35	32	23	18
Pertussis	109	117	77	52	118
Rubella	2	7	2	0	1
Salmonellosis	569	620	574	421	364
Shigellosis	524	420	387	284	221
Syphilis	52	35	23	24	25
Tuberculosis	438	385	333	338	297

Source: County of San Diego, Health and Human Services Agency, Division of Community Epidemiology.

Enterics

Enteric illnesses largely result from the ingestion of fecally contaminated food or water or from the ingestion of infected animal products. However, certain enteric conditions may have other sources. For example, several different serotypes of Salmonella have been associated with reptiles and chicks, and young puppies may carry Campylobacter.

Foodborne illness represents a significant burden of disease in the United States. The Centers for Disease Control and Prevention estimates that over 38 million cases of foodborne illness occur each year[13]. Of those, approximately 61,000 (2%) people are hospitalized[2]. Foodborne illnesses are often mild to moderate in severity, and rarely result in death. In fact, the true burden of these illnesses is largely unknown because the illnesses may be so mild or short in duration that people do not seek medical attention. Furthermore, if people do seek medical attention, the medical provider may not obtain a specimen for specific diagnosis, the lab may not perform the necessary diagnostic test, or the illness or laboratory result may not be reported to the Office of Public Health.

Several programs within the Health and Human Services Agency conduct outbreak investigation and education to reduce the medical and cost-related impact of these diseases in the community. In particular, 13 foodborne outbreaks involving hundreds of people were investigated by Epidemiology in 1999, in collaboration with the Department of Environmental Health. These are the recognized outbreaks, but do not include the thousands of cases of foodborne disease that go unreported each year. The chance of becoming infected with an enteric illness can be dramatically reduced by handwashing, safe food handling and storage practices, and Hepatitis A vaccine.

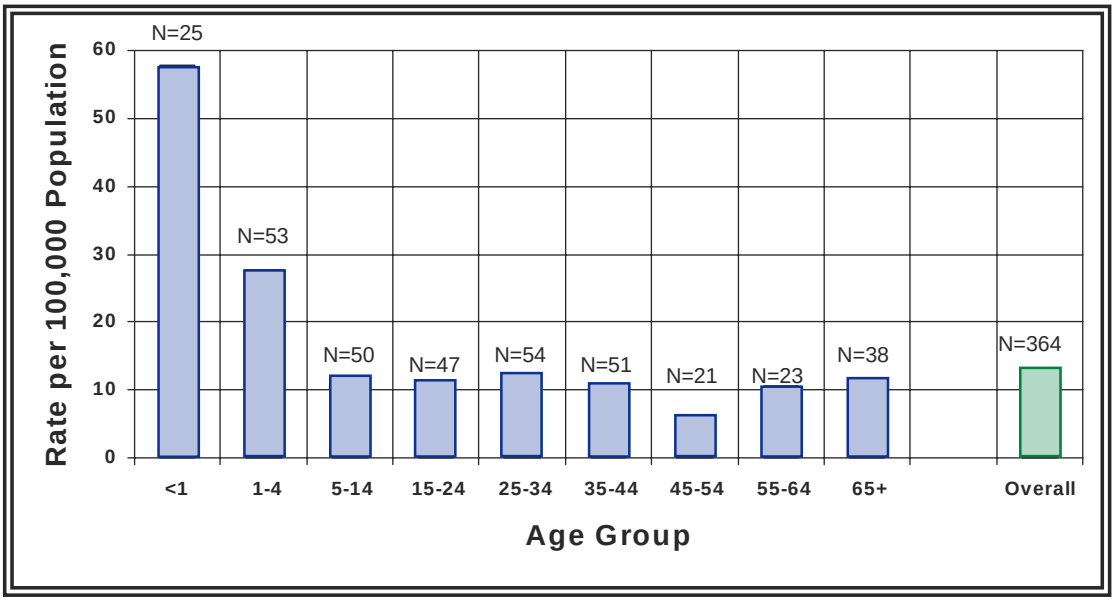
The most common enteric illnesses in San Diego County are Campylobacter, Giardia, hepatitis A, Salmonella and Shigella. Since 1996, the incidence of all of these illnesses has been decreasing in San Diego County. Hepatitis A decreased 57% between 1996 and 1999, representing the largest decline among the enteric illnesses. This decrease may be attributable to a heightened public awareness of the importance of handwashing, enhanced public education on safe foodhandling practices, and the fact that hepatitis A is the only enteric illness for which there is an effective vaccine. The smallest decline during the same time period occurred among Giardia cases, which decreased 10%.

Hispanics have the highest rates of infection of all racial/ethnic groups for Campylobacter, hepatitis A and Shigella. The rate of Giardia among blacks is 5.5 times higher than Hispanics and 2.5 times higher than whites. Salmonella rates are similar among Hispanics, blacks and whites.

In general, enteric illnesses affect small children disproportionately. Specifically, children under five years of age have the highest rates of infection with the enteric conditions except hepatitis A. This distribution may be attributable in part to the increased hand to mouth activities among this age group and the frequency of transmission in day care settings. In all conditions but Salmonella, the rate of infection is higher among one to four year olds when compared to children less than one year old. However, for Salmonella, children less than one year old have a rate that is about two to seven times higher than other age groups. This high rate of Salmonella among children less than one year is consistent with what is reported on a national level.

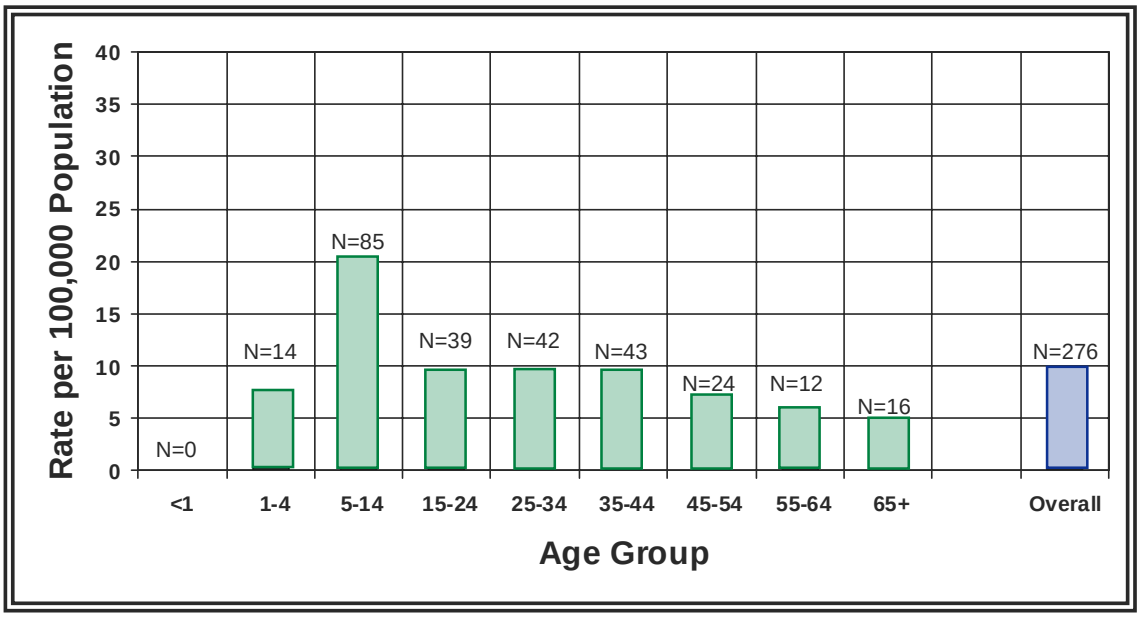
Children aged five to fourteen years have the highest rates of hepatitis A infection. In fact, the incidence rate among this age group is almost three times that observed among children less than five years old. Approximately 67% of the reported cases that occurred among five to fourteen year olds were Hispanic. This increased rate among Hispanic children may be attributable to travel to countries that have high rates of hepatitis A, including Mexico.

Salmonella Rates by Age Group
San Diego County, 1999



Data unavailable for 1 case
Note: Caution should be used when interpreting rates calculated from small numbers.
In calculating rates, unknowns are distributed among the categories in proportion to the relative number of knowns in the categories.
Cases represent estimates based on this redistribution.

Hepatitis A Rates by Age Group
in San Diego County: 1999



Data unavailable for 1 case
Note: Caution should be used when interpreting rates calculated from small numbers.
In calculating rates, unknowns are distributed among the categories in proportion to the relative number of knowns in the categories.
Cases represent estimates based on this redistribution.

Sexually Transmitted Disease

During the last decade there has been a substantial decline in the incidence of bacterial STDs, primarily syphilis and gonorrhea. Chlamydia incidence is more difficult to determine because most cases are detected by screening female patients and thus, the number of reported cases depends on the screening coverage and the sensitivity of the screening test.

STDs Facilitate HIV Transmission

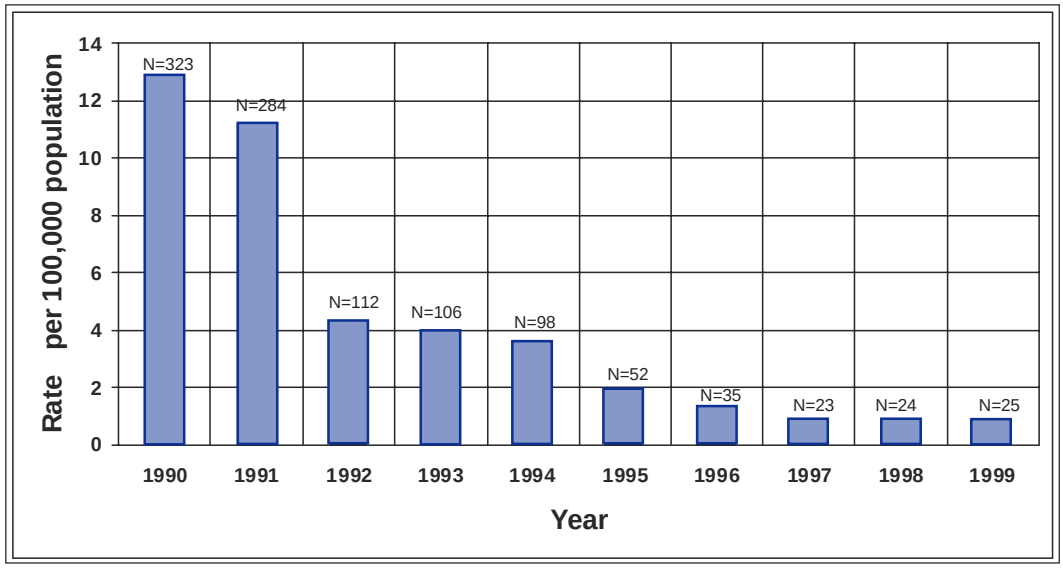
A considerable amount of epidemiologic and clinical research data has been published during the last 10 years showing that STDs and bacterial vaginosis facilitate HIV transmission. The data are so clear that the CDC HIV/STD Advisory Committee has recommended that STD prevention and control among persons at risk for HIV and those with HIV infection, should be considered a primary HIV prevention activity that should be incorporated into HIV prevention programs. This biomedical adjunct to behavioral risk reductions should have the most impact in populations with a high prevalence of STDs. Although it is difficult to know what proportion of HIV transmission is attributable to concomitant STDs, screening and treating STDs in their own right is a small cost compared to the potential benefit of preventing HIV transmission.

Syphilis

There has been a dramatic decline in infectious syphilis (primary and secondary stage) which began in 1992. During the last 3 years (1997-1999) cases have been at historical low levels (23, 24, 25 cases, respectively, with a rate of <1.0 per 100,000 population). In previous years, most syphilis cases were occurring among the African-American population and were associated with crack-cocaine use and prostitution. During 1997–1999, the interval between African-American persons with syphilis was great and suggests that endemic transmission had been interrupted. During the last three years, approximately 30% of cases have been imported, mostly from sexual contacts in Mexico. In August – September 1999, a small cluster of 10 cases occurred among men who have sex with men (MSM). This same population was involved in the syphilis transmission that occurred throughout the U.S. in the early 1980s. Relapsing unsafe behavior has been noted recently, thus raising concern that syphilis outbreaks may occur among MSMs in the future. This is particularly worrisome since syphilis increases HIV transmission 5-10 fold.

The STD Field and Community Services Section is very attentive to syphilis cases and can assist in getting sex partners treated. The elimination of syphilis would address one of the most glaring examples of racial inequities in the US; the rate of syphilis among African Americans is 34 times higher than that for white Americans[14].

Primary and Secondary Syphilis Rates by Year
San Diego County, 1990-1999



Source: County of San Diego, HHSA – Community Disease Control, STD Control Program

Gonorrhea

The incidence of gonorrhea has steadily declined from over 8,000 reported cases in the late 1980s to 1509 cases in 1997; however, the decline was halted with 1,595 and 1,560 cases being reported in 1998 and 1999, respectively. Most cases occurred in sexually active adolescents and young adults in 1999 with >50% occurring in persons <25 years of age. African-Americans are disproportionately affected with incidence rates approximately 10 times higher than the rest of the population (Hispanics [RR = 8.3] and Whites [RR = 12.5]). Symptomatic gonorrhea in males who are HIV infected have a ten-fold increase in urethral secretion HIV levels which should markedly increase HIV infectivity during co-infection. More education and efforts to control gonorrhea are needed.

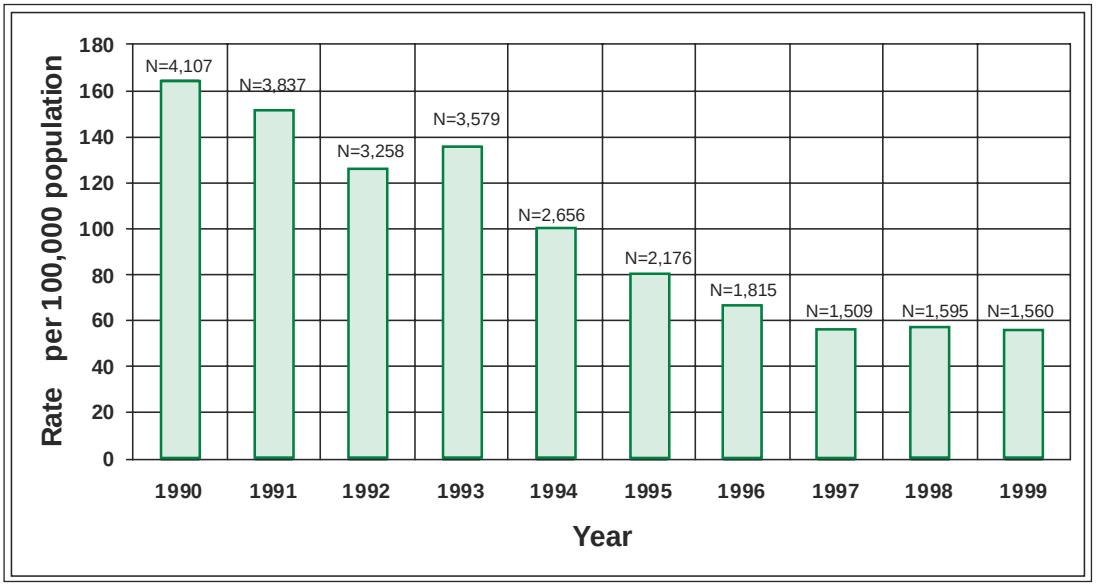
Chlamydia

This bacterial STD is very common among adolescents and young adults (similar to gonorrhea). This age group accounted for >70% of reported cases in 1999. Most (>75%) are diagnosed by community clinicians and >75% are among women who are usually screened during routine gynecological or prenatal examinations. More than 75% of infections are asymptomatic in women and >50% are asymptomatic in men. It is recommended that all sexually active teen females be screened annually or more often if they have had a new sex partner and unprotected intercourse and that sexually active teen males be screened when possible – sports physicals would be an opportune time.

High-Risk STD Area

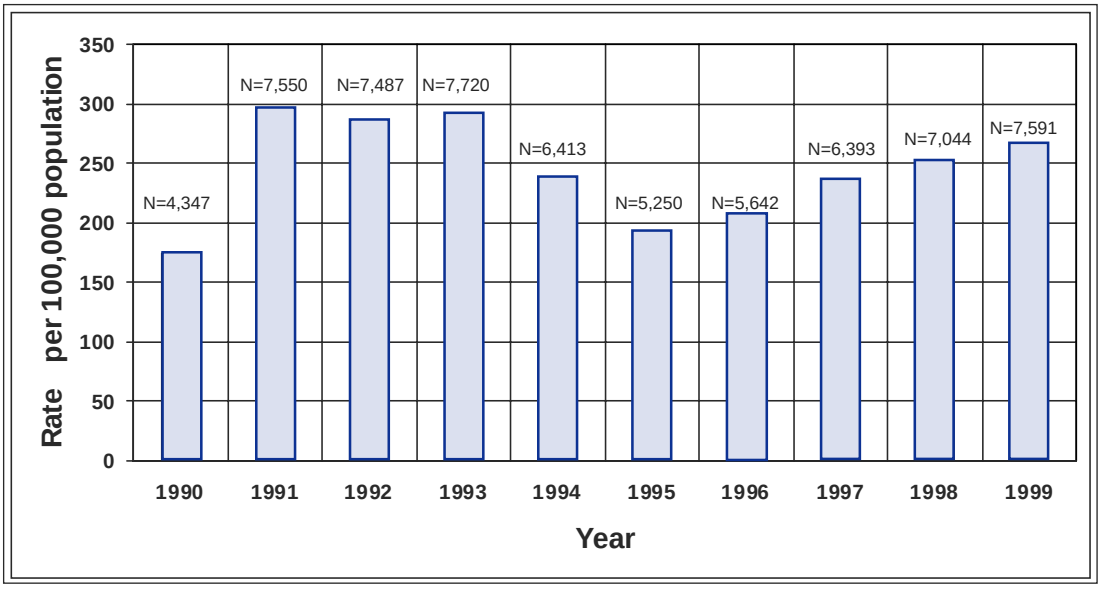
Analysis of the geographic distribution of reported STDs has shown a concentration of gonorrhea and chlamydia (and formerly syphilis) in the Central Region of San Diego. This area is comprised of 471,674 persons with 158,148 (33.5%) White, 81,957 (17.4%) African-American, 168,054 (35.6%) Hispanic and 63,515 (13.5%) Asian/other and has a gonorrhea rate of 158.6 per 100,000 which is 4.6 times greater than the remainder of the county (34.1 per 100,000 population) and a chlamydia rate of 512.4 per 100,000 which is 2.4 times that of the remainder for the county (217.2 per 100,000 population). These data have guided the STD program to emphasize STD prevention and control in the Central Region.

Gonorrhea Rates by Year
San Diego County, 1990-1999



Source: County of San Diego, HHSA – Community Disease Control, STD Control Program

Chlamydia Rates by Year
San Diego County, 1990-1999



Source: County of San Diego, HHSA – Community Disease Control, STD Control Program